Applicant: Debargha Mukherjee et al.

Serial No.: 10/724,284

Attorney's Docket No.: 200310816-1

Amendment dated May 9, 2008

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Remarks

I. Status of claims

Claims 1-43 were pending.

Claims 37-43 have been withdrawn.

II. Claim rejections under 35 U.S.C. § 102

The Examiner has rejected claims 11-19, 33, and 34 under 35 U.S.C. § 102(b) over Kalra (U.S. 5,953,506).

<u>A.</u> Claim 11

Independent claim 11 has been amended and now recites:

11. A machine-implemented method, comprising:

receiving a scalable encoded bitstream comprising scalable encoded media data and values of non-media-type-specific scalability attribute variables defining different adaptation points of the scalable encoded media data;

obtaining receiving attributes for a destination of an outbound version of the scalable encoded bitstream, wherein ones of the receiving attributes define explicit constraints on the outbound version of the scalable encoded bitstream in terms of respective semantic-independent functions of ones of the scalability attribute variables;

determining values of adaptation measures from respective evaluations the semantic-independent functions based on the values of the ones of the scalability attribute variables;

ascertaining a set of one or more candidate ones of the adaptation points of based on imposition of the constraints on the determined values of the adaptation measures;

selecting an adaptation point from the set of candidate adaptation points without regard to the scalable encoded media data; and

transcoding the scalable bit stream in accordance with the selected adaptation point to produce the outbound version of the scalable encoded bitstream.

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Kalra does not disclose the "obtaining receiving attributes..." element of claim 1. Instead, Kalra receives semantic-dependent values for specific parameters (network bandwidth, user preference for video quality relative to audio quality, and average time to decode; see col. 15, line 45 - col. 16, line 20). These values do not "define explicit constraints on the outbound version of the scalable encoded bitstream in terms of respective semantic-independent functions of ones of the non-media-type-specific scalability attribute variables." Instead, these are semantic-dependent values that correspond to implicit constraints that must be interpreted by the adaptive stream server (see col. 17, lines 10-55).

Kalra also does not disclose the "determining values of adaptation measures from respective evaluations the semantic-independent functions based on the values of the ones of the scalability attribute variables," as recited in claim 1. Instead, Kalra determines the bandwidths allocated to video from a semantic-dependent function of the network bandwidth and user preference values, determines the audio decode ratio from a semantic-dependent function of the average time to decode value, and determines the CPUR_A from a semantic-dependent function of the audio decode ratio and the curve specified by the user preference. These functions are not semantic independent as evidenced by the fact that the adaptive stream server uses the semantics of the functions in order to infer that the resulting values are bandwidth, CPU and video constraints.

For at least these reasons, the rejection of claim 11 under 35 U.S.C. § 102(b) over Kalra now should be withdrawn.

B. <u>Claims</u> 12-19

Each of claims 12-19 incorporates the elements of independent claim 11 and therefore is patentable over Kalra for at least the same reasons explained above.

C. Claim 33

Independent claim 33 has been amended and now recites elements that essentially track the pertinent elements of claim 11 discussed above. Therefore, claim 33 is patentable over Kalra for at least the same reasons explained above in connection with claim 11.

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D. Claim 34

Independent claim 34 has been amended and now recites elements that essentially track the pertinent elements of claim 11 discussed above. Therefore, claim 34 is patentable over Kalra for at least the same reasons explained above in connection with claim 11.

III. Withdrawn claims 37-43

Applicants traverse the Examiner's election requirement for the following reasons: (I) the Examiner has not established a *prima facie* case for requiring the election of species, and (II) because no valid reason exists for dividing among these species.

A. The Examiner has Not Established a *Prima Facie* Case for the Election Requirement

The specification discloses that the asserted "species" 1 and 2 are related. For example, with respect to claim 37, the specification describes an embodiment of the transcoder that adapts the description metadata in the process of transcoding the scalable bit stream (see, e.g., FIG. 11 and page 27, lines 16-26). With respect to claims 38-43, the specification describes an embodiment in which the process of determining the value of at least one of the adaptation measures based at least in part on a multivariate function involves evaluating combination variables (see, e.g., page 20, line 21 - page 21, line 7).

In the case of related inventions, MPEP § 806.05(j) explains that, for related product inventions or related process inventions that are not in a combination/subcombination relationship, the inventions are distinct if (emphasis added):

- (A) the inventions as claimed do not overlap in scope, i.e., are mutually exclusive;
- (B) the inventions as claimed are not obvious variants; and
- (C) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 802.01.

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The burden is on the examiner to provide an example to support the determination that the inventions are distinct, but the example need not be documented.

The only "explanation" given by the Examiner in support of the election requirement is the following standard boilerplate:

The species are independent or distinct because species one only describes an embodiment of the invention were the bitstream is further described as containing an expression stack and the species further limits the operation of that expression stack. Species 2 describes the embodiment where a multivariate function is used to determine the adaptation of the bitstream, but relates in no way to the existence or operation of an expression stack.

In this "explanation," the Examiner has attempted to address prong (A) of MPEP § 806.05(j) by purporting to show that the two species are mutually exclusive. The Examiner's reasoning, however, applies only to claims 38-43; it does not apply in any way to claim 37. Thus, the Examiner has not provided any basis for withdrawing claim 37. Furthermore, the Examiner's argument that "species" 2 (consisting of claim 37-43) "relates in no way to the existence or operation of an expression stack" is contradicted by the express language of claim 38, which recites in part "pushing the respective ordered list onto a respective expression stack." Moreover, both "species" 1 and "species" 2 relate to evaluation of a stack function (compare claim 19 of "species" 1 and claims 38-43 of "species" 2).

Furthermore, the Examiner appears to have attempted to address prong (B) of MPEP § 806.05(j) with the statement that "Species 2 ... relates in no way to the existence or operation of an expression stack." This statement, however, is inadequate to make the showing required under prong (B). In particular, MPEP § 808.01 explains that (emphasis added):

The particular reasons relied on by the examiner for holding that the inventions as claimed are either independent or distinct should be concisely stated. A mere statement of conclusion is inadequate. The reasons upon which the conclusion is based should be given.

With respect to prong (B) of MPEP § 806.05(j), the Examiner's statement that "Species 2 ... relates in no way to the existence or operation of an expression stack" amounts to no more than a

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baseless statement of conclusion that, under MPEP § 808.01, is inadequate to support a showing that "the inventions as claimed are not obvious variants."

Finally, the Examiner has not provided any showing whatsoever that the required prong (C) of MPEP § 806.05(j) is met by his proposed election requirement.

Thus, the Examiner's election requirement is premised solely on his conclusion that the asserted "species" are mutually exclusive from each other. This conclusion, however, is incorrect, as evidenced by the fact that both "species" 1 and "species" 2 relate to evaluation of a stack function (compare claim 19 of "species" 1 and claims 38-43 of "species" 2). In addition, under MPEP § 806.05(j), mutual exclusivity is insufficient by itself to establish that the species are either independent or distinct. Therefore, the Examiner has not made the showing required under MPEP § 806.05(j) and, consequently, has not established a *prima facie* basis for requiring an election between the asserted "species" 1 and 2.

B. No Valid Reason Exists for Dividing Among the Related Inventions

In general, if "the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among related inventions" (MPEP § 808.02).

In support of the proposed election of species, the Examiner has stated that:

There is an examination and search burden for these patentable distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g. searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C.112, first paragraph.

In this statement, however, the Examiner has not provided any basis for believing that the classifications of the asserted Species 1 and Species 2 are not the same or would be different in the future. Indeed, the Examiner has not given any explanation whatsoever to support such a belief. Thus, the Examiner has not shown that separate examinations are required for the

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asserted Species 1 and Species 2. Accordingly, under MPEP § 808.02 "no reasons exist for dividing among related inventions" and the election requirement should be withdrawn.

C. Conclusion

For the reasons explained above, Applicant requests that the election requirement be withdrawn upon reconsideration.

Each of claims 37-43 incorporates the elements of independent claim 11 and therefore is patentable over Kalra for at least the same reasons explained above.

IV. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

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Edouard Garcia Reg. No. 38,461

Telephone No.: (650) 289-0904

Please direct all correspondence to:

Hewlett-Packard Company Intellectual Property Administration Legal Department, M/S 35 P.O. Box 272400 Fort Collins, CO 80528-9599